

CLAIM AMENDMENTS

1-6. (canceled)

7. (original): A method to obtain a database of signal transduction protein localization profiles in response to toxic compounds which method comprises contacting a multiplicity of toxic compounds with at least one cell type, observing and recording any translocation of at least one signal transduction protein in the presence of each toxic compound, optionally as a function of time, wherein at least 2 cell types are employed and/or the translocation of at least 2 signal transduction proteins is observed and/or wherein the translocation is observed as a function of time; and recording the observations of translocation in computer-readable and retrievable form.

8. (original): The method of claim 7 wherein said signal transduction protein is a protein kinase C (PKC) isoenzyme.

9. (original): The method of claim 7 wherein the intracellular localization of at least two signal transduction proteins is determined.

10. (original): The method of claim 9 wherein the intracellular localizations of a multiplicity of signal transduction proteins is determined.

11. (original): The method of claim 7 wherein said translocation is observed using a wide-field microscope.

12. (original): The method of claim 7 wherein the translocation is measured by labeling the proteins with specific antibodies.

13. (original): A computer-readable database prepared by the method of claim 7.

14-19. (canceled)

20. (original): A method to identify a set of signal transduction proteins whose intracellular localization is useful to determine perturbations from normal cellular status which method comprises

- arbitrarily identifying an additional set of signal transduction proteins;
- determining the changes in intracellular localization in response to an initial set of arbitrarily chosen compounds which modify the status of the intracellular environment with respect to said initial set of signal transduction proteins;
- comparing the changes in intracellular localization obtained among members of the initial set of signal transduction proteins and compounds;
- discarding compounds and/or signal transduction proteins which result in redundant intracellular translocation information;
- substituting additional provisional signal transduction proteins and compounds for the proteins and compounds discarded to obtain a second set of proteins and a second set of compounds;
- obtaining intracellular localization information for the second set of compounds with respect to the second set of proteins;
- again comparing the intracellular localization information obtained among members of the initial set of signal transduction proteins and compounds, and
- discarding compounds and proteins that result in redundant profiles; and
- repeating the foregoing steps until a set of proteins is obtained which provides at least five principal components with respect to the range of compounds marketed as small organic molecules.